

# Planting Design Templates for Rain Gardens



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# RainScapes Planting Plans

Vegetation in rain gardens should be attractive, easy to maintain, provide ecological value, and suit the homeowner’s design preference. Recommendations for basic planting zones are listed below and illustrated in Figure 1: Moisture and Pollution Zones (on next page.)

- Media surface: Tolerant of both drought and periodic inundation. Woody vegetation (excluding large trees) can be included in this zone.
- Inside slopes: Tolerant of both drought and periodic inundation.
- Top and outside slopes of berm (if used): Shallow-rooted, drought-tolerant plants or sod.
- Aim for vegetated cover year round. This can be accomplished by selecting plants with basal rosette winter forms. Also, cut back plants in the spring rather than fall.
- Assumed sizes of plants are quart or larger.

Consult the sample planting plans on the following pages for planting ideas, and use the references listed at the end of this guide for additional help in selecting plants and other planting templates.

Features of a **Multi-level planting plan** include:

- Multiple garden cells on two levels
- Installed on slopes that are too steep to fit a large garden
- Berm provides an access path through the garden
- Plant selection and arrangement can be switched to create a cottage or deer-resistant garden

Features of a **Cottage planting plan** include:

- Meadow-like mixture of plant textures, heights and colors
- Taller shrubs on the upslope side act as a backdrop to the plantings
- Provides habitat for birds, butterflies and other pollinators

Features of a **Deer-resistant planting plan** include:

- Plants selected that deer do not prefer
- Fragrant plants which mask more deer attractive plants
- A hedge on the upslope side, which will require regular pruning to maintain its shape



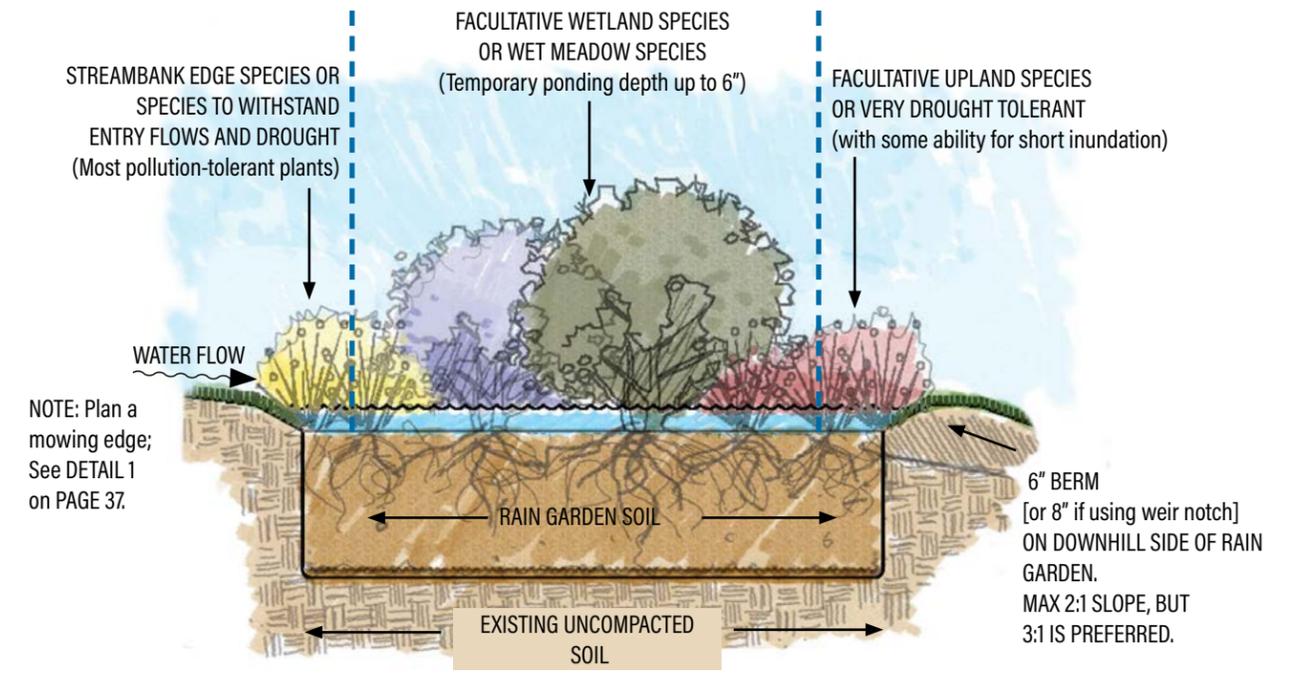
*Multi-level planting example*



*Cottage planting example*

# ALL PLANS – Zones & design tips

FIGURE 1. Moisture and pollution zones



## DESIGN TIPS

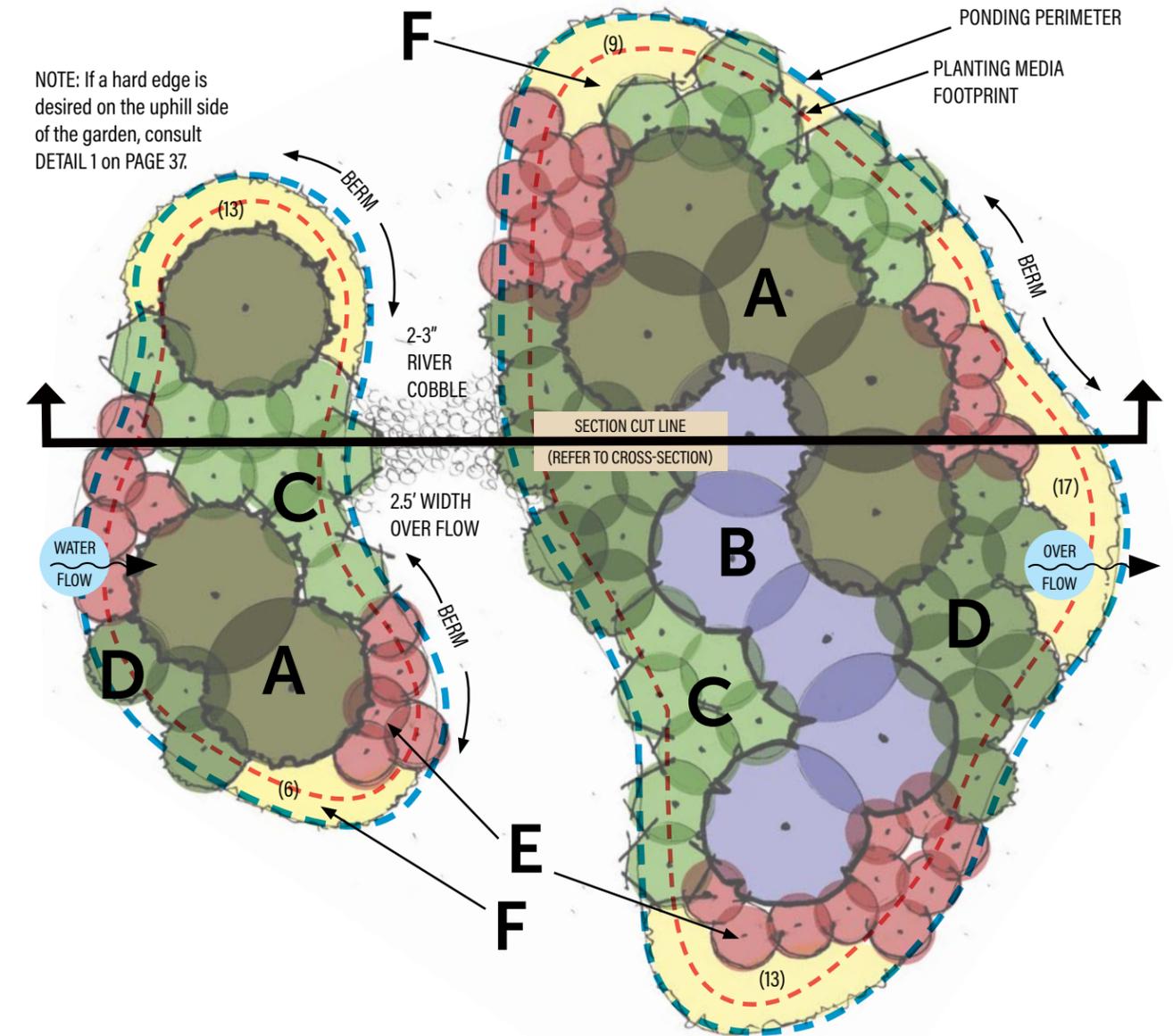
- Plants native to the Mid-Atlantic Piedmont are recommended because they are well-adapted to the region and will provide high ecological value.
- Rain gardens manage flowing water, so plant spacing needs to be more dense than typical gardens.
- Space and plant perennials so that their canopies will grow together and cover the ground to minimize weeds. Plant spacing should be about 25% closer than typically recommended.
- Consider plant maintenance when designing and planting the rain garden. Allow room for a mulch path that allows access to all the plant groups.
- Plant shrubs and perennials in groups of three to five of the same species. Avoid complex planting plans. Simpler plant palettes make plant identification for maintenance easier.
- If a tree is used, generally plant the tree at one edge of the garden. Use only small understory trees. Large canopy trees should be avoided within the garden because their roots will take up too much space.
- Groundcovers are good to add under trees and shrubs. (See RainScapes plant handouts for ideas.)
- Select perennials with winter basal rosette to maintain winter coverage.
- Consider how the rain garden will fit into the surrounding landscape and how it will look from different positions, including views from the house and neighboring properties.
- Consider the color selection, such as warm versus cool colors, and the relationship they have to existing plantings and the house.
- Consider seasonal changes to color and texture in the garden. Select plants to provide visual interest in each season.
- Consider complementary mixtures of textures: fine textures mixed with coarser foliage textures creates interest and contrast.
- Label larger groups of each species to allow desirable vegetation to be distinguished from weeds.

# Multi-level planting plan

SUN

PLAN

(+/- 325 sf of Ponding Perimeter)



SUN

# Multi-level planting plan

## PLANT LIST



**A** *Ilex verticillata* 'Cacapon' / Winterberry\*  
6-8' HT.- 42" o.c.  
Medium height shrub providing year round interest with red berries



**B** *Baptisia australis* / Blue False Indigo  
3-4' HT.- 42" o.c.  
Upright perennial with many purple flowers atop flower spikes in spring



**C** *Iris versicolor* / Blue Flag Iris  
24-30" HT.- 12" o.c.  
Swordlike leaves with large, violet-blue flowers in late spring



**D** *Rudbeckia fulgida* / Black Eyed Susan  
2' HT.- 24" o.c.  
Native, yellow flowering perennial that blooms from June to October



**E** *Asclepias tuberosa* / Butterfly Milkweed  
1-2' HT.- 18" o.c.  
Medium height perennial with orange flowers in early summer



**F** *Phlox subulata* / Moss Phlox  
4-6" HT.- 12" o.c.  
Spring blooming fragrant perennial with lower growth habit

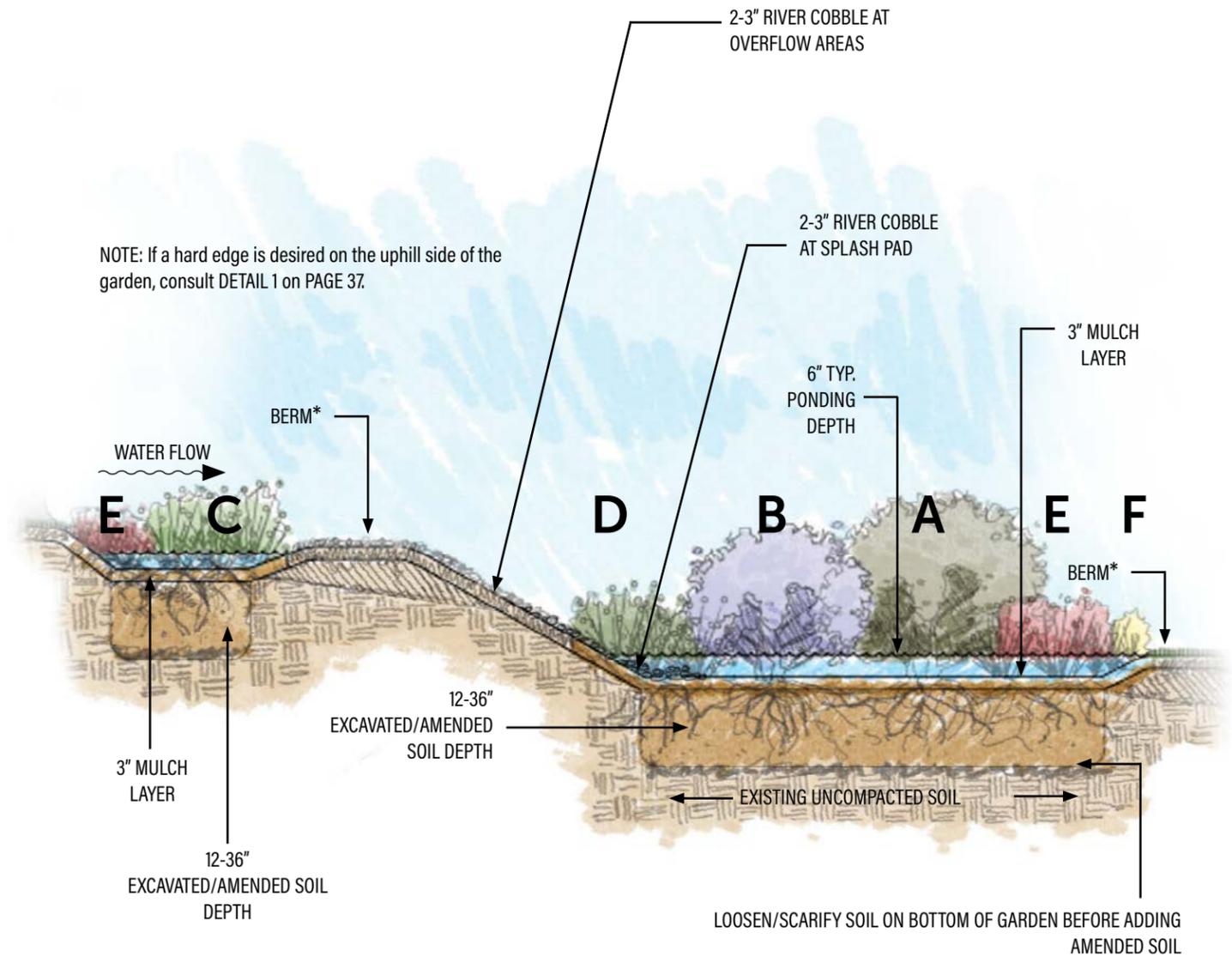
Note: o.c. = on center spacing

\* Denotes Female Plant; Requires 1 male counterpart. For Winterberry, provide one 'Jim Dandy' (male) for each grouping of 'Cacapon' (female).

# Multi-level planting plan

SUN

## CROSS-SECTION



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better). Maximum slope for exterior of berm is 3:1. See page 58 for more details.

Scale: 1/4"=1'-0"



SUN

# Multi-level planting plan

## ALTERNATE PLANT CHOICES

	Latin Name	Common	Ht.	Spacing	Design Value
<b>A-</b>	<i>Ilex glabra 'Shamrock'</i>	Inkberry	3-4'	42" o.c.	Medium height shrub providing evergreen foliage.
	<i>Viburnum dentatum</i>	Arrowwood Viburnum	4-6'	42" o.c.	Medium height deciduous shrub which produces white flowers in late spring.
<b>B-</b>	<i>Panicum virgatum 'Shenandoah'</i>	Switchgrass	3-4'	42" o.c.	Medium height grass with color interest spring through fall.
	<i>Eupatorium dubium 'Little Joe'</i>	Joe Pye Weed	3-4'	42" o.c.	Perennial with late summer blooms that will attract butterflies. Dwarf form of tall.
<b>C-</b>	<i>Aster novae angliae 'Purple Dome'</i>	New England Aster	1.5-2'	24" o.c.	Dwarf perennial that blooms through September with vibrant purple flowers.
	<i>Schizachyrium scoparium 'The Blues'</i>	Little Bluestem	2-3'	24" o.c.	Narrow, upright grass with light-blue foliage and year-round color interest.
<b>D-</b>	<i>Monarda didyma 'Petite Delight'</i>	Bee Balm	1.5 - 2.5'	24" o.c.	Perennial with pink blooms June through September attracting hummingbirds.
	<i>Eupatorium coelestinum</i>	Mist Flower	1.5 - 2.5'	24" o.c.	Perennial with light blue blooms July through October.
<b>E-</b>	<i>Penstemon digitalis 'Huskers Red'</i>	Beard Tongue	2-3'	18" o.c.	Clump forming perennial with tubular flowers in mid spring early summer.
	<i>Liatris spicata 'Kobold'</i>	Purple Gayfeather	2.5'	18" o.c.	Medium height perennial with protruding purple spikes in late summer.
<b>F-</b>	<i>Sisyrinchium graminoides</i>	Blue-Eyed Grass	6-12"	12" o.c.	Small perennial with fine textured leaves and blue flowers.
	<i>Geranium maculatum</i>	Wild Geranium	1-2'	12" o.c.	A low clustering perennial with many pale pink flowers that bloom April to May.

Note: o.c. = On Center



*Eupatorium dubium*



*Eupatorium coelestinum*



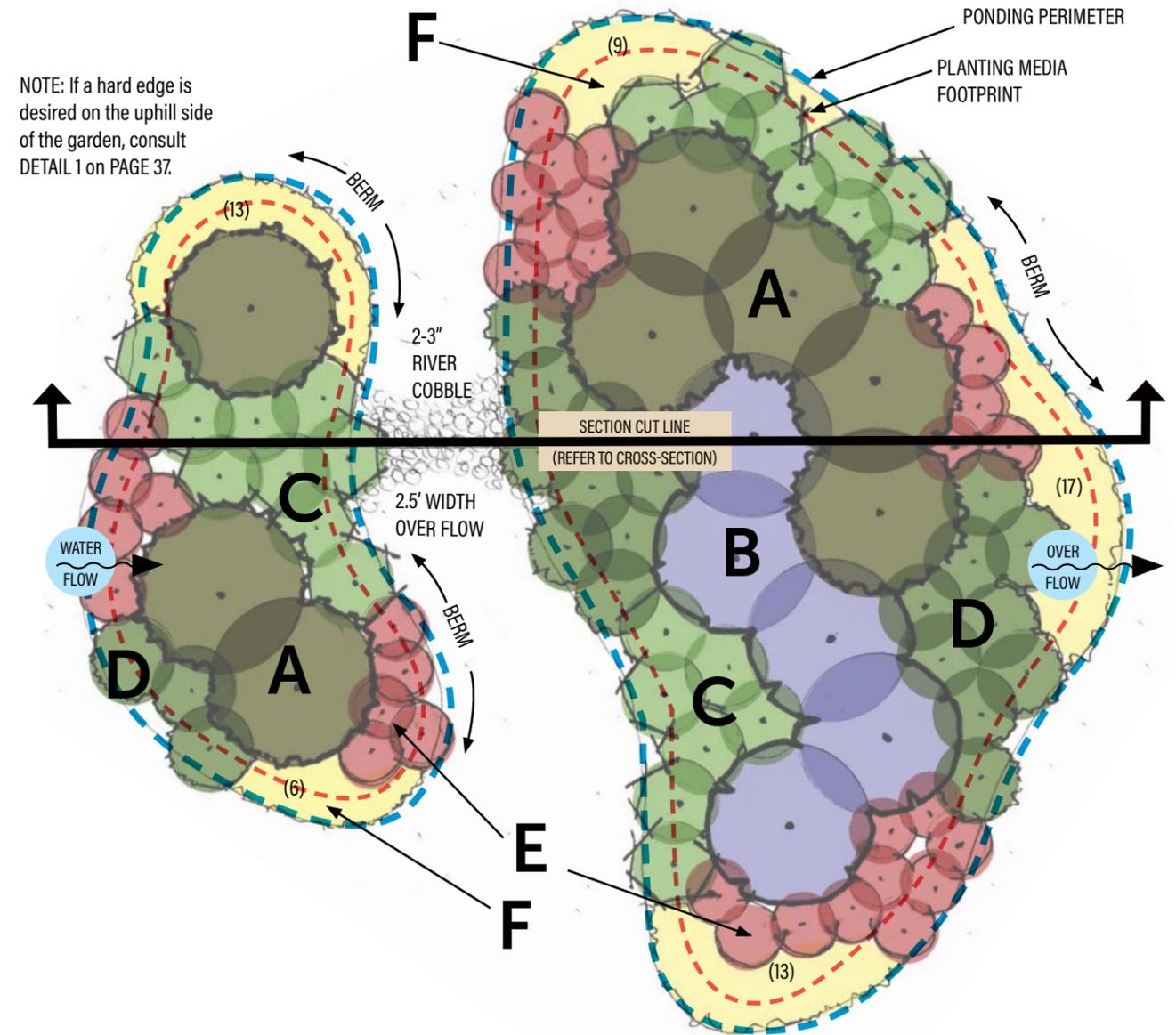
*Liatris spicata*

# Multi-level planting plan

SHADE/  
PART SHADE

## PLAN

(+/- 325 sf of Ponding Perimeter)



Scale: 1/4" = 1'-0"



SHADE/  
PART SHADE **Multi-level planting plan**

PLANT LIST



**A** *Aronia arbutifolia* 'Brilliantissima' / Chokeberry  
6-8' HT.- 42" o.c.  
Medium height shrub with glossy red berries and fall foliage



**B** *Leucothoe fontanesiana* 'Scarletta' / Scarletta Fetterbush  
2-3' HT.- 42" o.c.  
Low, dense shrub with red to deep purple foliage color



**C** *Aster divaricatus* / White Wood Aster  
1-2' Ht.- 24" o.c.  
Shorter perennial with white daisy flowers appearing August to October



**D** *Polystichum acrostichoides* / Christmas Fern  
1.5-3' HT.- 24" o.c.  
Evergreen fern that grows in a fountain-like clump



**E** *Carex stricta* / Tussock Sedge  
2-3' HT.- 18" o.c.  
Perennial sedge that forms a dense tussock of leafy culms

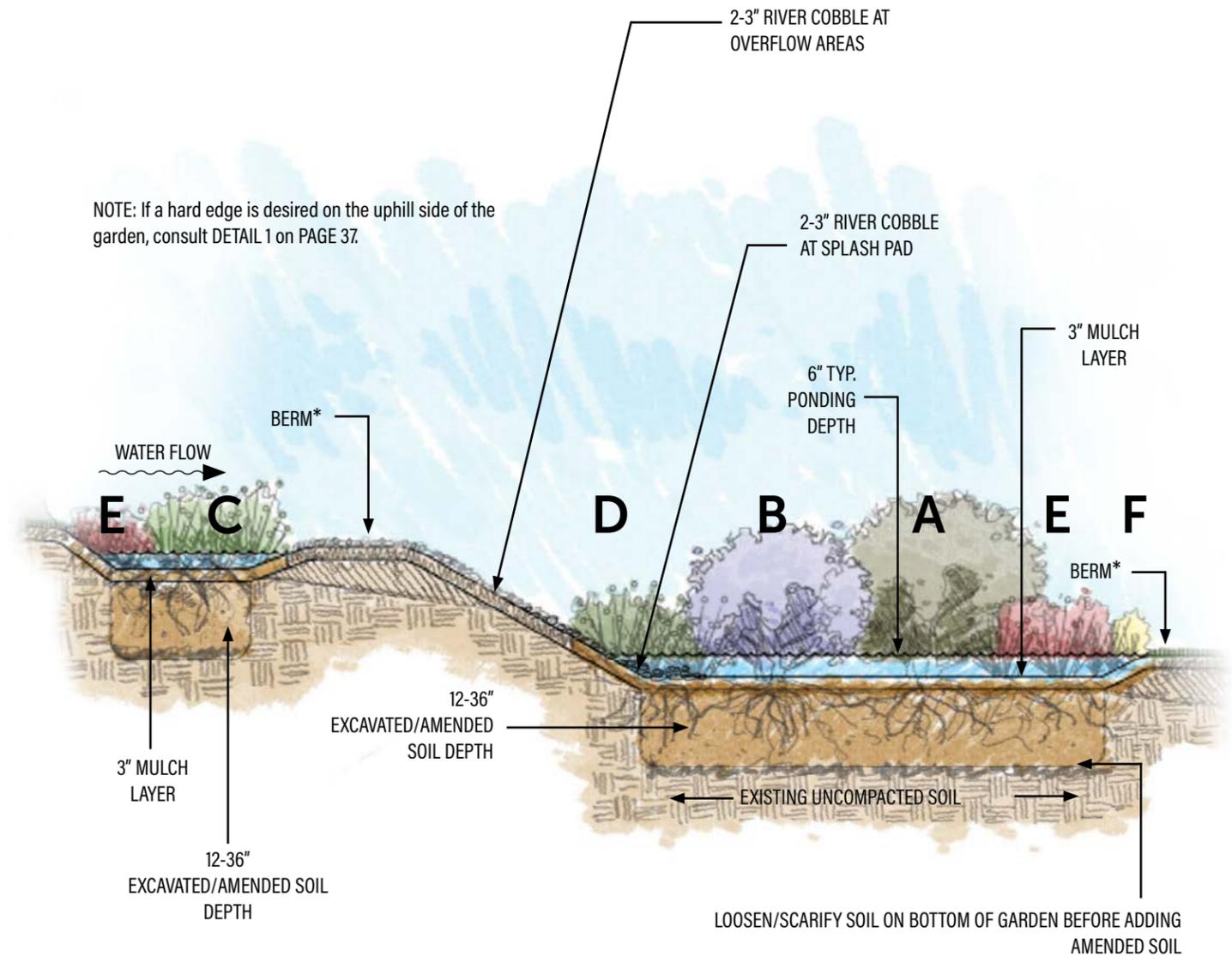


**F** *Phlox stolonifera* 'Blue Ridge' / Creeping Phlox  
8" HT.- 12" o.c.  
Mat forming habit with masses of clear purple flowers

Note: o.c. = on center spacing

SHADE/  
PART SHADE **Multi-level planting plan**

CROSS-SECTION



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better). Maximum slope for exterior of berm is 3:1. See page 58 for more details.

Scale: 1/4"=1'-0"



**SHADE/  
PART SHADE** **Multi-level planting plan**

**ALTERNATE PLANT CHOICES**

	Latin Name	Common	Ht.	Spacing	Design Value
<b>A-</b>	<i>Myrica pensylvanica</i>	Bayberry	5-10'	42" o.c.	Larger shrub providing evergreen foliage.
	<i>Lindera benzoin</i>	Spicebush	6-8'	42" o.c.	Larger deciduous shrub providing many yellow flowers in spring.
<b>B-</b>	<i>Clethra alnifolia 'Sixteen Candles'</i>	Summersweet	4-5'	42" o.c.	Medium height shrub with color interest spring through fall.
	<i>Hydrangea arborescens 'Annabelle'</i>	Smooth Hydrangea	4-5'	42" o.c.	Medium height shrub which produces large white flowers in late spring.
<b>C-</b>	<i>Amsonia hubrechtii</i>	Willowleaf Bluestar	2-5'	24" o.c.	Fine textured perennial with blue star-like flowers appearing in early summer.
	<i>Aruncus dioicus</i>	Goat's Beard	1.5-3'	24" o.c.	Perennial with fine textured feathery blooms in late spring
<b>D-</b>	<i>Chasmanthium latifolium</i>	Northern Sea Oats	3-4'	24" o.c.	Clump-forming, ornamental grass with drooping seeds.
	<i>Dryopteris marginalis</i>	Evergreen Wood Fern	1-3'	24" o.c.	Woodland fern with excellent rich brown color in Autumn.
<b>E-</b>	<i>Chelone glabra</i>	Turtlehead	2-3'	18" o.c.	Shorter height perennial with white flowers appearing in late summer early fall.
	<i>Heuchera americana</i>	Coral Bell	1-2'	18" o.c.	Darker purple foliage perennial with white showy flowers in spring.
<b>F-</b>	<i>Phlox divaricata</i>	Wild Blue Phlox	10-12"	12" o.c.	Spring blooming fragrant perennial with lower growth habit.
	<i>Tiarella cordifolia 'Brandywine'</i>	Foam Flower	6-8"	12" o.c.	Low growing, spreading perennial with white puffy flowers in spring.

Note: o.c. = On Center



*Dryopteris marginalis*



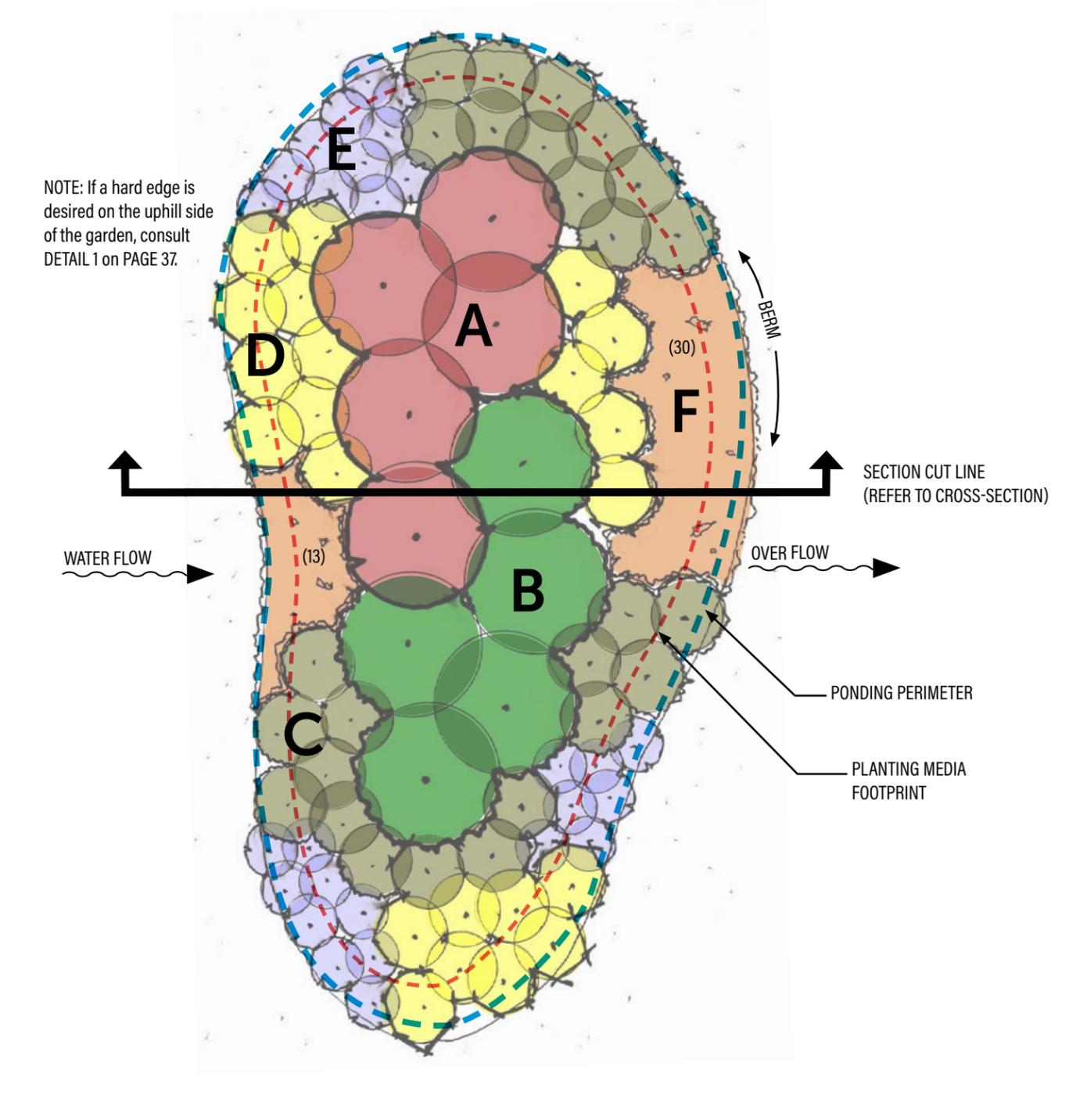
*Heuchera americana*



*Chelone glabra*

**Cottage planting plan** **SUN**

**PLAN** (+/- 285 sf of Ponding Perimeter)



Scale: 1/4" = 1'-0"



SUN

# Cottage planting plan

## PLANT LIST



**A** *Ilex verticillata* 'Cacapon' / Winterberry\*  
6-8' HT.- 42" o.c.  
Medium height shrub providing year round interest with red berries



**B** *Baptisia australis* / Blue False Indigo  
3-4' HT.- 42" o.c.  
Upright perennial with many purple flowers atop flower spikes in spring



**C** *Iris versicolor* / Blue Flag Iris  
24-30" HT.- 12" o.c.  
Swordlike leaves with large, violet-blue flowers in late spring



**D** *Rudbeckia fulgida* / Black Eyed Susan  
2' HT.- 24" o.c.  
Native, yellow flowering perennial that blooms from June to October



**E** *Asclepias tuberosa* / Butterfly Milkweed  
1-2' HT.- 18" o.c.  
Medium height perennial with orange flowers in early summer



**F** *Phlox subulata* / Moss Phlox  
4-6" HT.- 12" o.c.  
Spring blooming fragrant perennial with lower growth habit

Note: o.c. = on center spacing

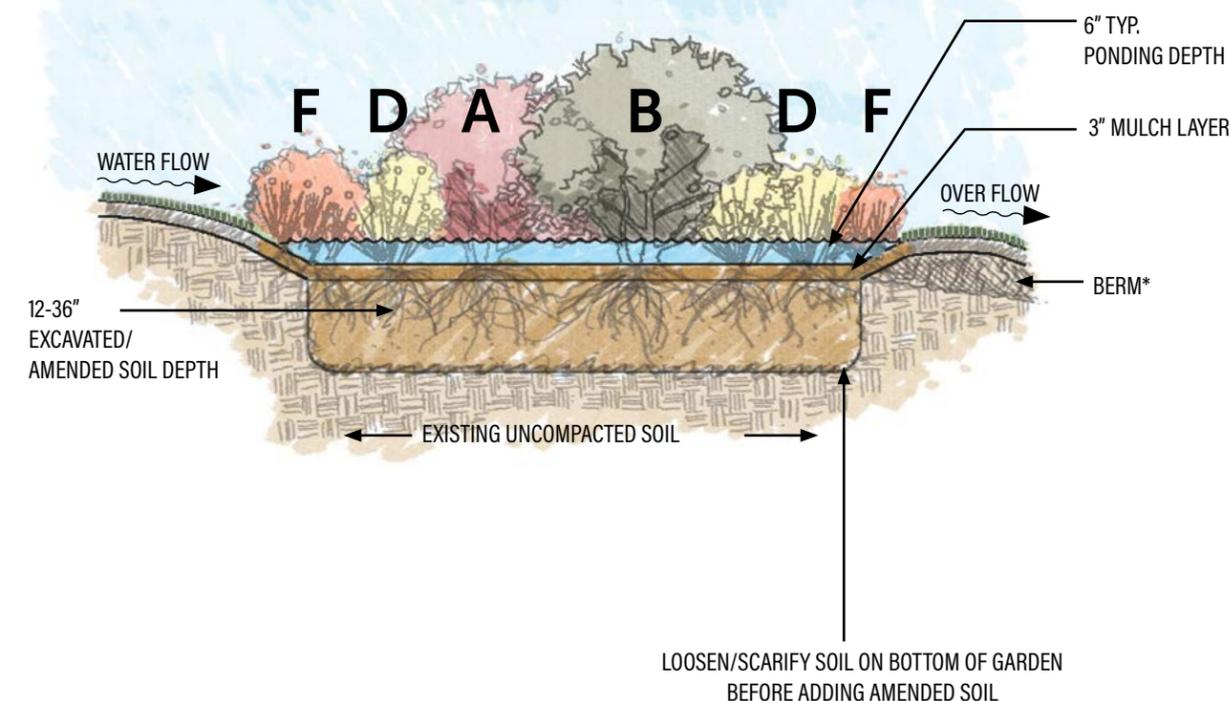
\* Denotes Female Plant; Requires 1 male counterpart. For Winterberry, provide one 'Jim Dandy' (male) for each grouping of 'Cacapon' (female).

# Cottage planting plan

SUN

## CROSS-SECTION

NOTE: If a hard edge is desired on the uphill side of the garden, consult DETAIL 1 on PAGE 37.



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better because 2:1 may erode). Maximum slope for exterior of berm is 3:1.

Scale: 1/4" = 1'-0"



**SUN** Cottage planting plan

ALTERNATE PLANT CHOICES

	Latin Name	Common	Ht.	Spacing	Design Value
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	<i>Viburnum dentatum</i>	Arrowwood Viburnum	4-6'	42" o.c.	Medium height deciduous shrub which produces white flowers in late spring.
B-	<i>Panicum virgatum 'Shenandoah'</i>	Switchgrass	3-4'	42" o.c.	Medium height grass with color interest spring through fall.
	<i>Eupatorium dubium 'Little Joe'</i>	Joe Pye Weed	3-4'	42" o.c.	Perennial with late summer blooms that will attract butterflies. Dwarf form of tall.
C-	<i>Aster novae angliae 'Purple Dome'</i>	New England Aster	1.5-2'	24" o.c.	Dwarf perennial that blooms through September with vibrant purple flowers.
	<i>Schizachyrium scoparium 'The Blues' or 'Standing Ovation'</i>	Little Bluestem	2-3'	24" o.c.	Narrow, upright grass with light-blue foliage and year-round color interest.
D-	<i>Monarda didyma 'Petite Delight'</i>	Bee Balm	1.5 - 2.5'	24" o.c.	Perennial with pink blooms June through September attracting hummingbirds.
	<i>Eupatorium coelestinum</i>	Mist Flower	1.5 - 2.5'	24" o.c.	Perennial with light blue blooms July though October.
E-	<i>Penstemon digitalis 'Huskers Red'</i>	Beard Tongue	2-3'	18" o.c.	Clump forming perennial with tubular flowers in mid spring early summer.
	<i>Liatris spicata 'Kobold'</i>	Purple Gayfeather	2.5'	18" o.c.	Medium height perennial with protruding purple spikes in late summer.
F-	<i>Sisyrinchium graminoides</i>	Blue-Eyed Grass	6-12"	12" o.c.	Small perennial with fine textured leaves and blue flowers.
	<i>Geranium maculatum</i>	Wild Geranium	1-2'	12" o.c.	A low clustering perennial with many pale pink flowers that bloom April to May.

Note: o.c. = On Center



*Aster nova-angliae*



*Panicum virgatum*

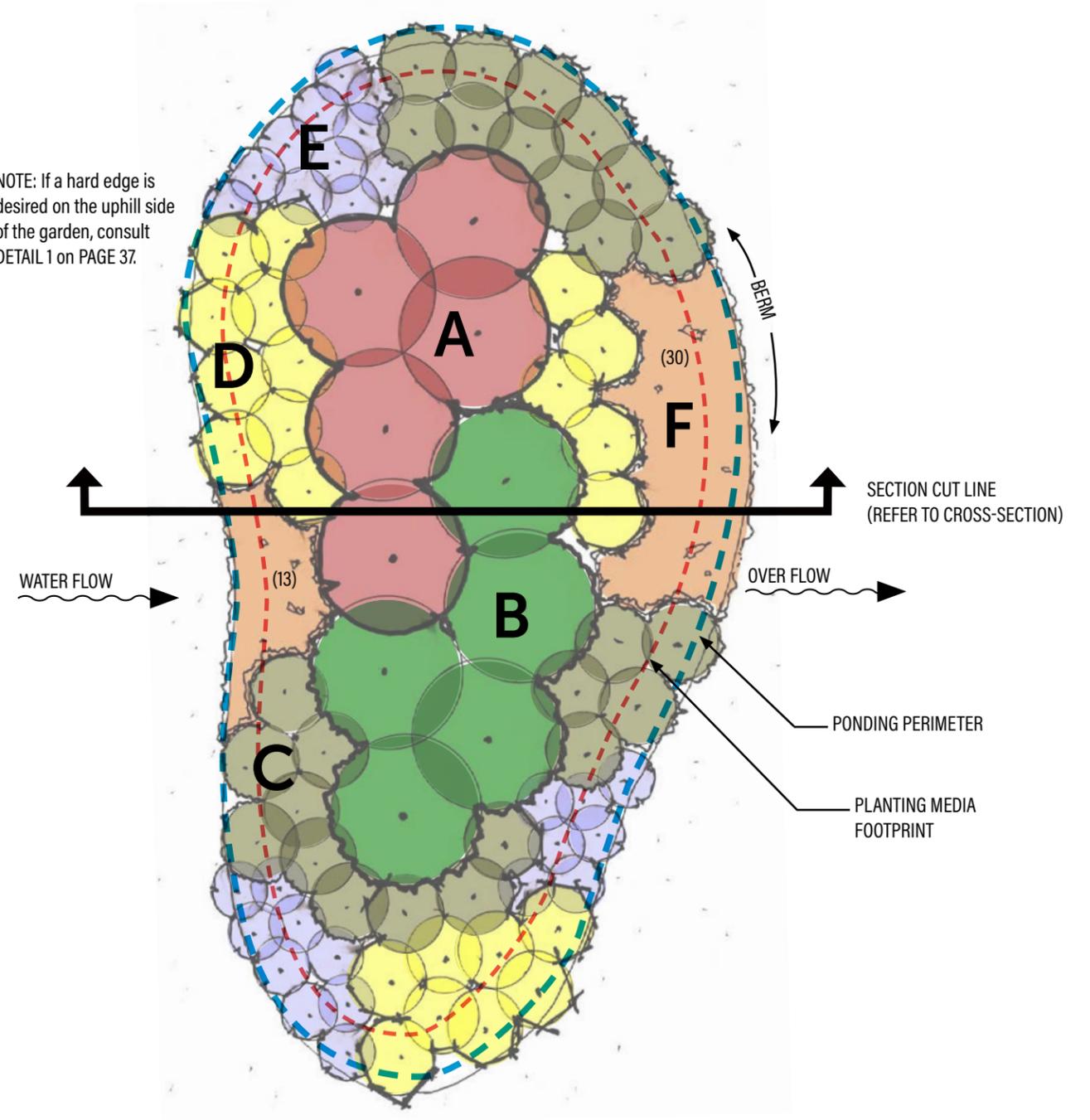


*Schizachyrium scoparium*

Cottage planting plan **SHADE/ PART SHADE**

PLAN (+/- 285 sf of Ponding Perimeter)

NOTE: If a hard edge is desired on the uphill side of the garden, consult DETAIL 1 on PAGE 37.



Scale: 1/4" = 1'-0"



SHADE/  
PART SHADE **Cottage planting plan**

PLANT LIST



**A** *Aronia arbutifolia* 'Brilliantissima' / Chokeberry  
6-8' HT.- 42" o.c.  
Medium height shrub with glossy red berries and fall foliage



**B** *Leucothoe fontanesiana* 'Scarletta' / Scarletta Fetterbush  
2-3' HT.- 42" o.c.  
Low, dense shrub with red to deep purple foliage color



**C** *Aster divaricatus* / White Wood Aster  
1-2' HT.- 24" o.c.  
Shorter perennial with white daisy flowers appearing August to October



**D** *Polystichum acrostichoides* / Christmas Fern  
1.5-3' HT.- 24" o.c.  
Evergreen fern that grows in a fountain-like clump



**E** *Carex stricta* / Tussock Sedge  
2-3' HT.- 18" o.c.  
Perennial sedge that forms a dense tussock of leafy culms  
Note: o.c. = on center spacing

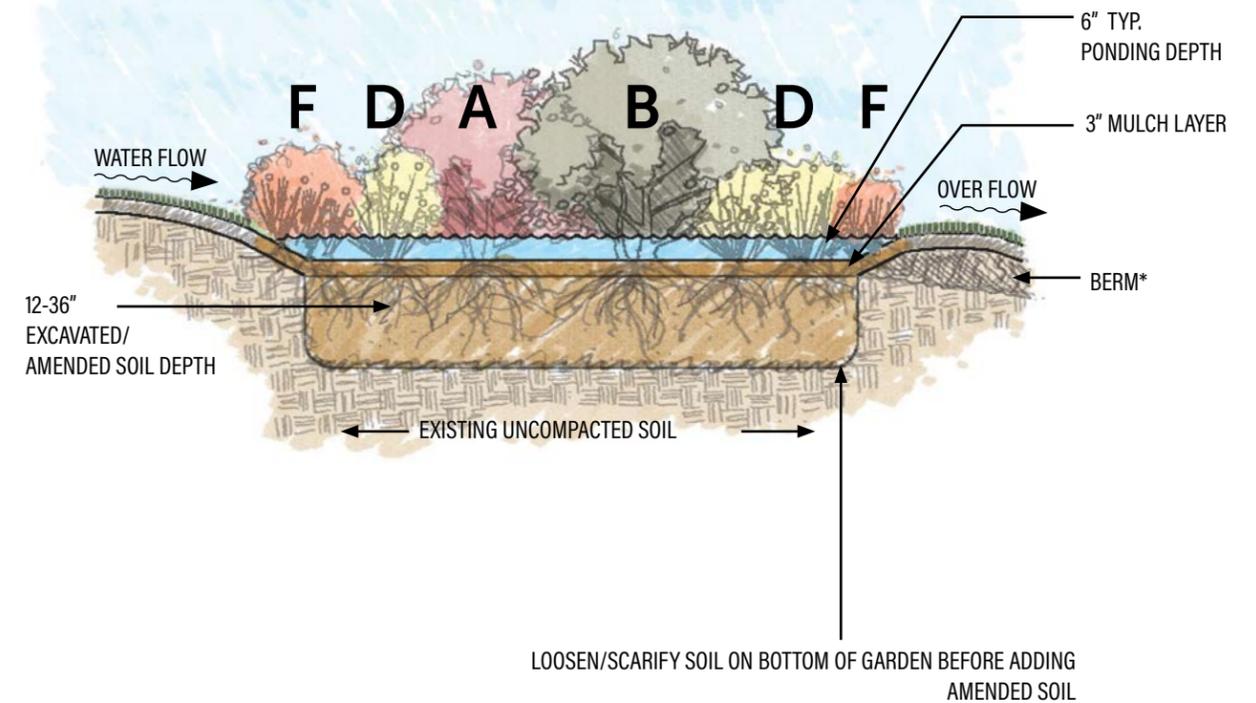


**F** *Phlox stolonifera* 'Blue Ridge' / Creeping Phlox  
8" HT.- 12" o.c.  
Mat forming habit with masses of clear purple flowers

SHADE/  
PART SHADE **Cottage planting plan**

CROSS-SECTION

NOTE: If a hard edge is desired on the uphill side of the garden, consult DETAIL 1 on PAGE 37.



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better because 2:1 may erode). Maximum slope for exterior of berm is 3:1.

Scale: 1/4" = 1'-0"



**SHADE/  
PART SHADE** Cottage planting plan

**ALTERNATE PLANT CHOICES**

	Latin Name	Common	Ht.	Spacing	Design Value
<b>A-</b>	<i>Myrica pensylvanica</i>	Bayberry	5-10'	42" o.c.	Larger shrub providing evergreen foliage.
	<i>Lindera benzoin</i>	Spicebush	6-8'	42" o.c.	Larger deciduous shrub providing many yellow flowers in spring.
<b>B-</b>	<i>Clethra alnifolia</i> 'Sixteen Candles'	Summersweet	4-5'	42" o.c.	Medium height shrub with color interest spring through fall.
	<i>Hydrangea arborescens</i> 'Annabelle'	Smooth Hydrangea	4-5'	42" o.c.	Medium height shrub which produces large white flowers in late spring.
<b>C-</b>	<i>Amsonia hubrechtii</i>	Willowleaf Bluestar	2-5'	24" o.c.	Fine textured perennial with blue star-like flowers appearing in early summer.
	<i>Aruncus dioicus</i>	Goat's Beard	1.5-3'	24" o.c.	Perennial with fine textured feathery blooms in late spring
<b>D-</b>	<i>Chasmanthium latifolium</i>	Northern Sea Oats	3-4'	24" o.c.	Clump-forming, ornamental grass with drooping seeds.
	<i>Dryopteris marginalis</i>	Evergreen Wood Fern	1-3'	24" o.c.	Woodland fern with excellent rich brown color in Autumn.
<b>E-</b>	<i>Chelone glabra</i>	Turtlehead	2-3'	18" o.c.	Shorter height perennial with white flowers appearing in late summer early fall.
	<i>Heuchera americana</i>	Coral Bell	1-2'	18" o.c.	Darker purple foliage perennial with white showy flowers in spring.
<b>F-</b>	<i>Phlox divaricata</i>	Wild Blue Phlox	10-12"	12" o.c.	Spring blooming fragrant perennial with lower growth habit.
	<i>Tiarella cordifolia</i> 'Brandywine'	Foam Flower	6-8"	12" o.c.	Low growing, spreading perennial with white puffy flowers in spring.

Note: o.c. = On Center



*Chasmanthium latifolium*



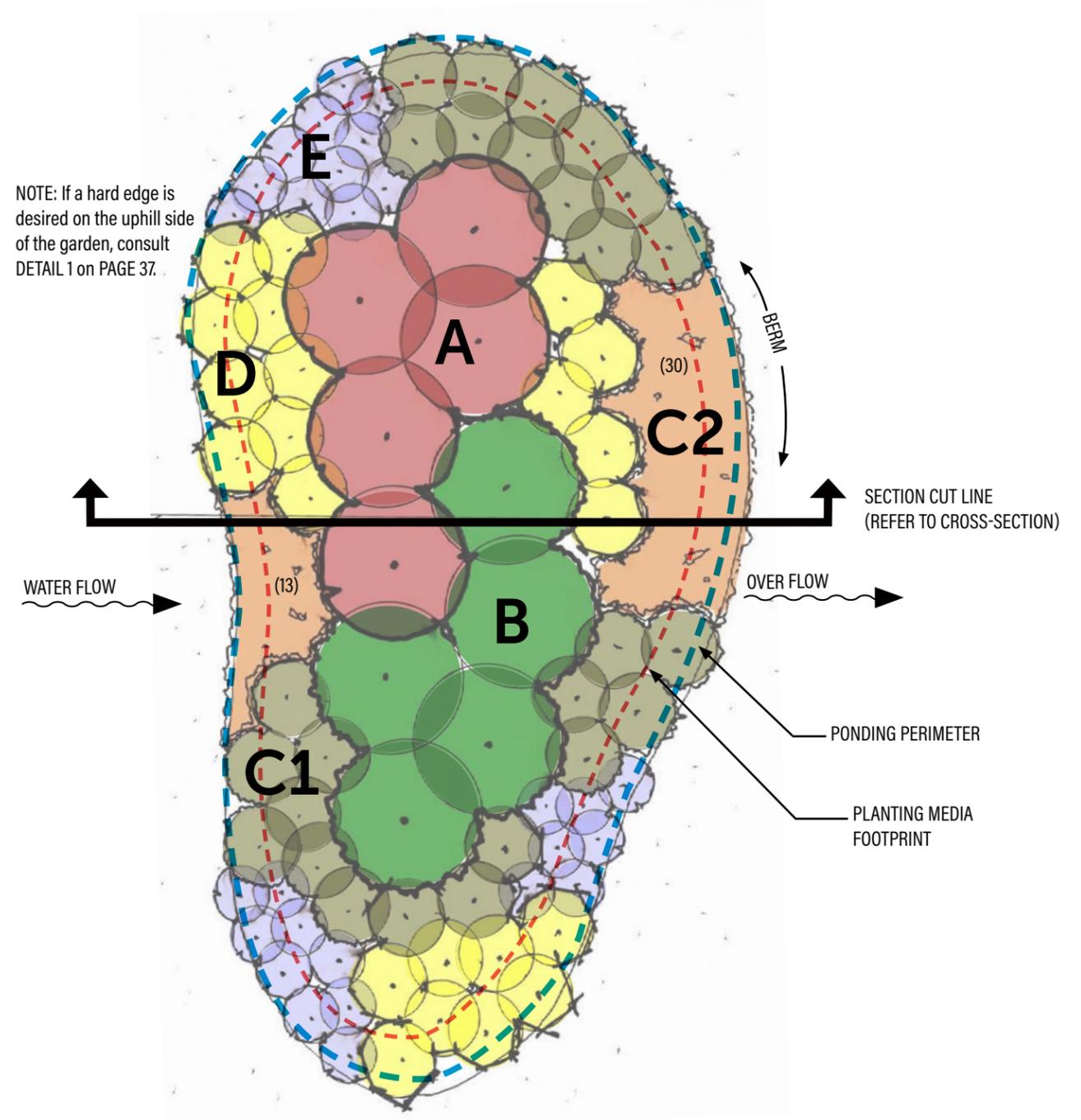
*Clethra alnifolia*



*Hydrangea arborescens*

**SUN** Deer-Resistant planting plan

**PLAN** (+/- 285 sf of Ponding Perimeter)



Scale: 1/4" = 1'-0"



# Deer-Resistant planting plan

## PLANT LIST



**A** *Viburnum dentatum* / Arrowwood Viburnum  
4-6' HT.- 42" o.c.  
Medium height deciduous shrub which produces white flowers in late spring



**B** *Panicum virgatum* 'Shenandoah' / Red Switchgrass  
3-4' HT.- 42" o.c.  
Medium height grass with color interest spring through fall



**C1** *Aster novae-angliae* 'Purple Dome' / New England Aster  
1.5-3' HT.- 24" o.c.  
Dwarf perennial that blooms through September with vibrant purple flowers



**C2** *Iris versicolor* / Blue Flag Iris  
24-30" HT.- 12" o.c.  
Swordlike leaves with large, violet-blue flowers in late spring



**D** *Rudbeckia fulgida* / Black Eyed Susan  
2' HT.- 24" o.c.  
Native, yellow flowering perennial that blooms from June to October

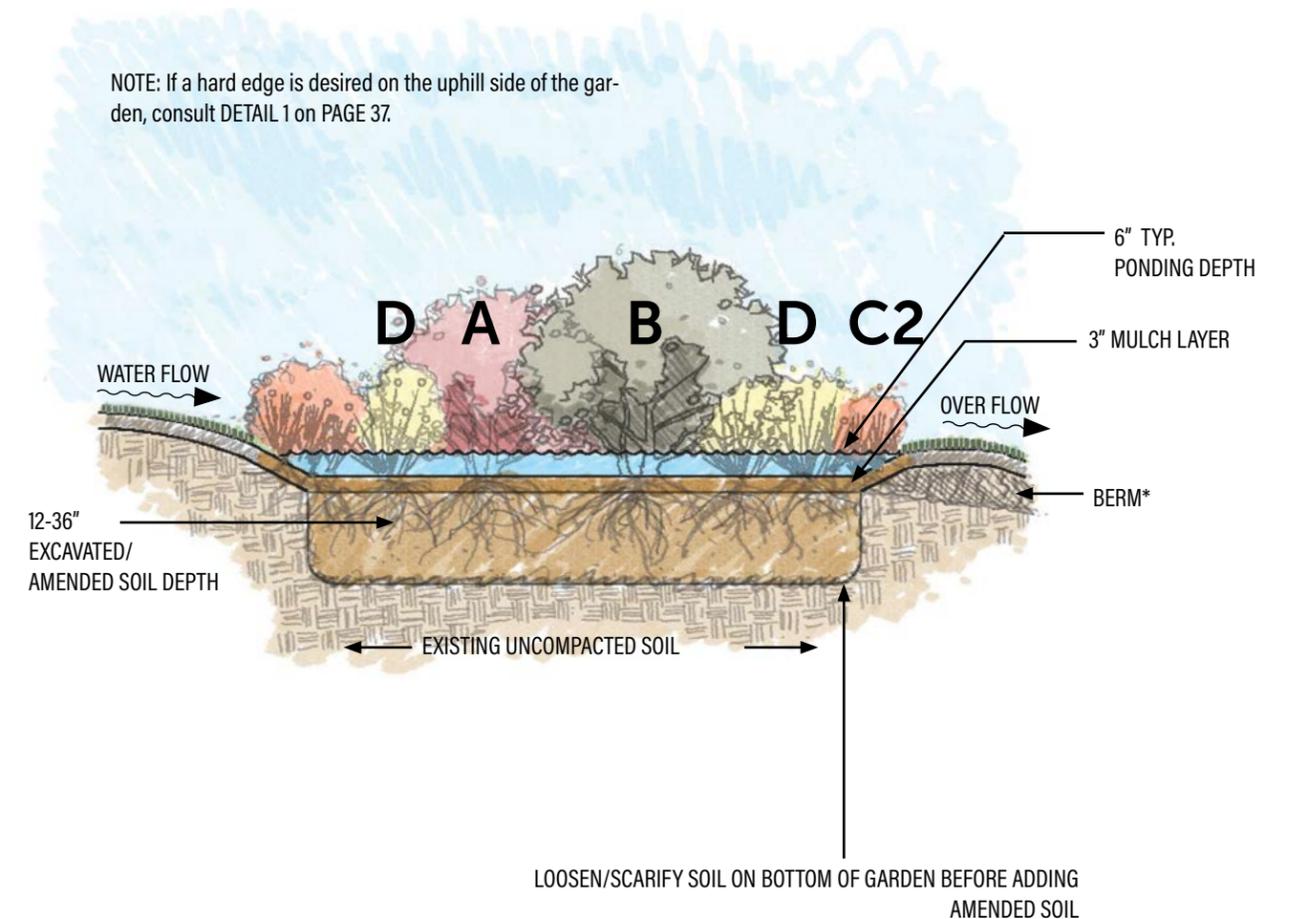


**E** *Asclepias tuberosa* / Butterfly Milkweed  
1-2' HT.- 18" o.c.  
Medium height perennial with orange flowers in early summer

Note: o.c. = on center spacing

# Deer-Resistant planting plan

## CROSS-SECTION



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better because 2:1 may erode). Maximum slope for exterior of berm is 3:1.

Scale: 1/4" = 1'-0"



SUN

# Deer-Resistant planting plan

## ALTERNATE PLANT CHOICES

	Latin Name	Common	Ht.	Spacing	Design Value
A-	<i>Ilex glabra 'Shamrock'</i>	Inkberry	3-4'	42" o.c.	Medium height shrub providing evergreen foliage.
	<i>Ilex verticillata 'Cacapon'</i>	Winterberry	6-8'	42" o.c.	Medium height shrub providing year round interest with red berries
B-	<i>Eupatorium dubium 'Little Joe'</i>	Joe Pye Weed	3-4'	42" o.c.	Perennial with late summer blooms that will attract butterflies. Dwarf form of tall.
	<i>Baptisia australis</i>	Blue False Indigo	3-4'	42" o.c.	Upright perennial with many purple flowers atop flower spikes in spring.
C-	<i>Schizachyrium scoparium 'The Blues' or 'Standing Ovation'</i>	Little Bluestem	2-3'	24" o.c.	Narrow, upright grass with light-blue foliage and year-round color interest.
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E-	<i>Penstemon digitalis 'Huskers Red'</i>	Beard Tongue	2-3'	18" o.c.	Clump forming perennial with tubular flowers in mid spring early summer.
	<i>Liatis spicata 'Kobold'</i>	Purple Gayfeather	2.5'	18" o.c.	Medium height perennial with protruding purple spikes in late summer.

Note: o.c. = On Center



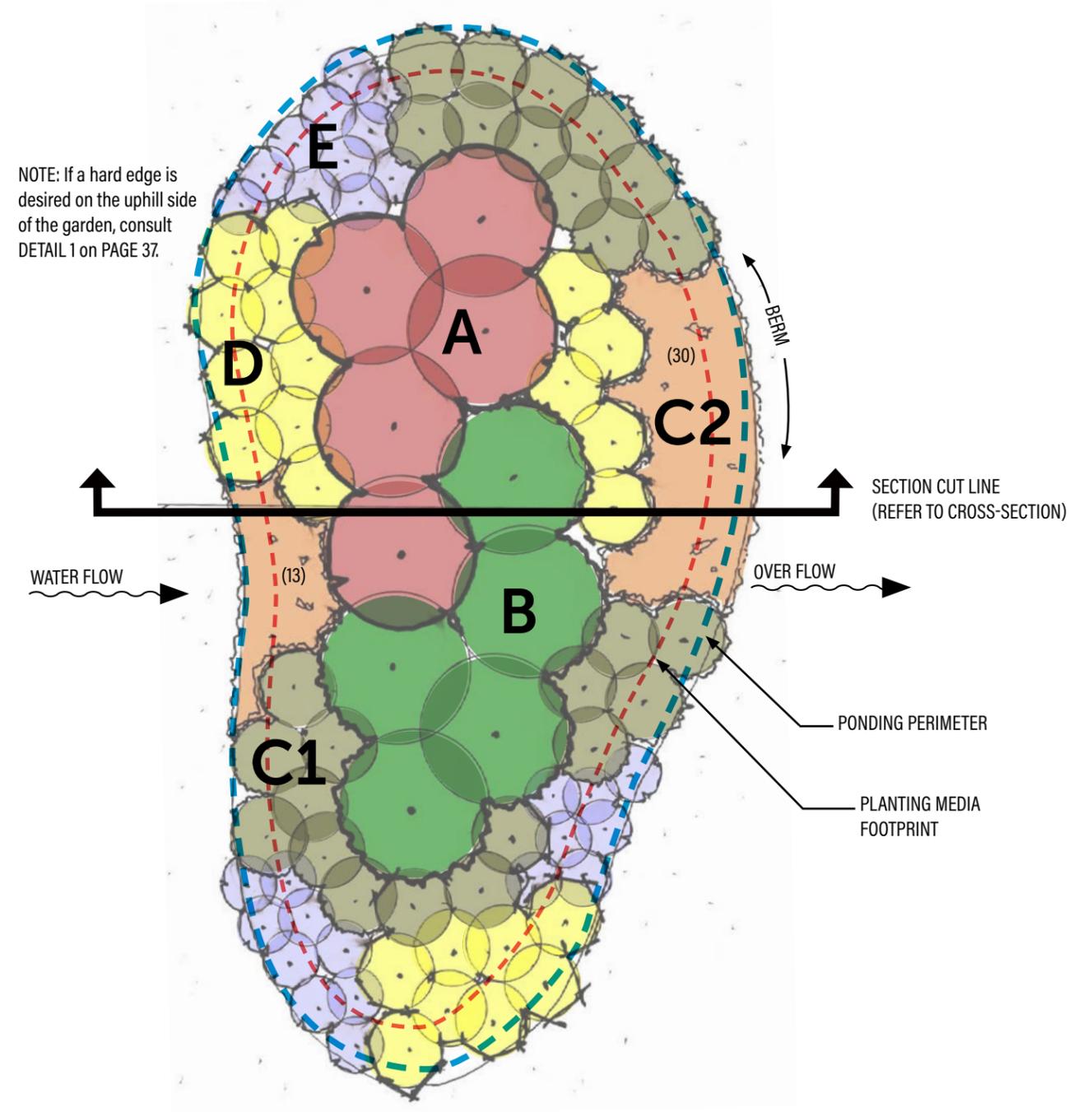
Scarify and incorporate compost into the planting area.

# Deer-Resistant planting plan

SHADE/  
PART SHADE

## PLAN

(+/- 285 sf of Ponding Perimeter)



Scale: 1/4" = 1'-0"



# Deer-Resistant planting plan

## PLANT LIST



**A** *Lindera benzoin* / Spicebush  
6-8' HT.- 42" o.c.  
Larger deciduous shrub providing many yellow flowers in spring



**B** *Hydrangea aborescens* 'Annabelle' / Smooth Hydrangea  
3-4' HT.- 42" o.c.  
Deciduous shrub with large white clusters of flowers in summer



**C1** *Aruncus dioicus* / Goat's Beard  
1.5-3' HT.- 24" o.c.  
Perennial with fine textured feathery blooms in late spring



**C2** *Aster divaricatus* / White Wood Aster  
1-2' Ht.- 24" o.c.  
Shorter perennial with white daisy flowers appearing August to October



**D** *Chasmanthium latifolium* / Northern Sea Oats  
3' HT.- 24" o.c.  
Clump-forming, ornamental grass with drooping seeds

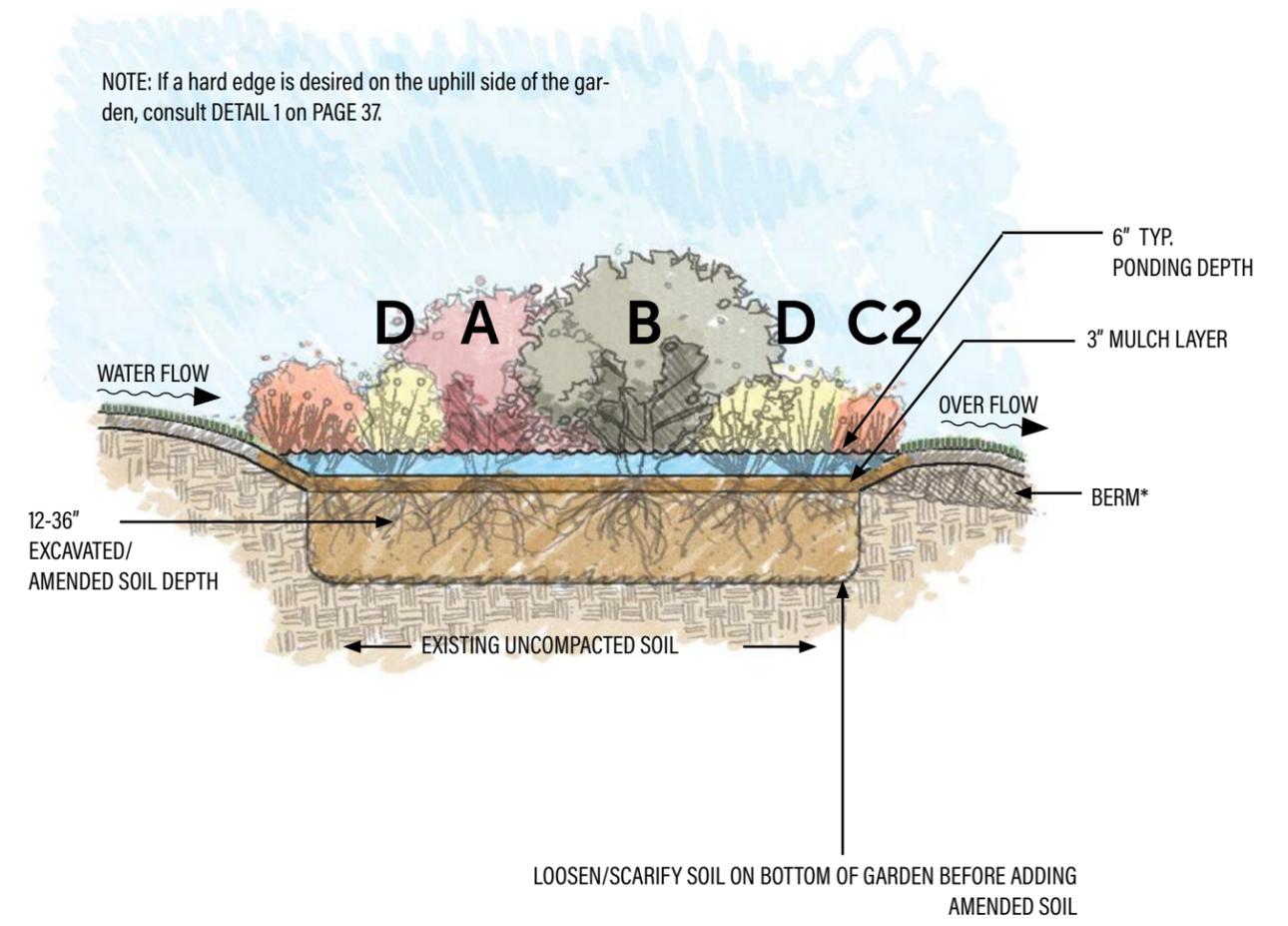


**E** *Carex stricta* / Tussock Sedge  
2-3' HT.- 18" o.c.  
Perennial sedge that forms a dense tussock of leafy culms

Note: o.c. = on center spacing

# Deer-Resistant planting plan

## CROSS-SECTION



\*BERM NOTE: Maximum inside slope of berm from ponding perimeter to media footprint is 2:1 (but 3:1 is better). Maximum slope for exterior of berm is 3:1. See page 58 for more details.

Scale: 1/4" = 1'-0"

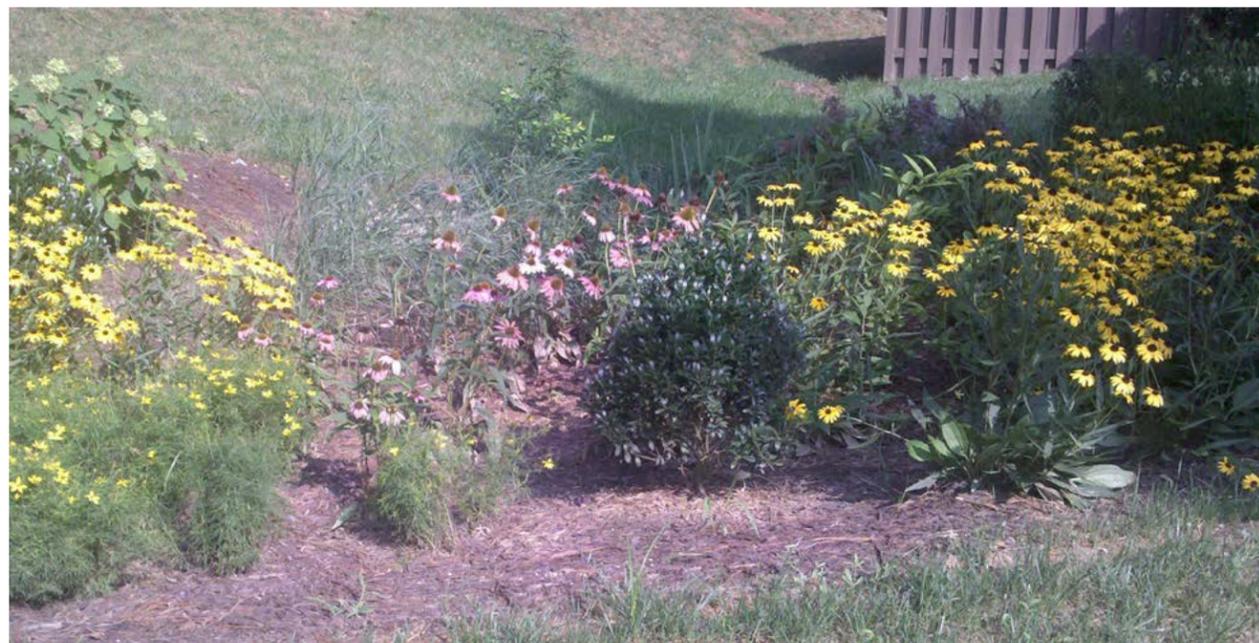


**SHADE/  
PART SHADE** **Deer-Resistant planting plan**

**ALTERNATE PLANT CHOICES**

Latin Name	Common	Ht.	Spacing	Design Value
<b>A-</b> <i>Myrica pensylvanica</i>	Bayberry	5-10'	42" o.c.	Larger shrub providing evergreen foliage.
<i>Aronia arbutifolia</i>	Chokeberry	6-8'	42" o.c.	Medium height shrub with glossy red berries and fall foliage.
<b>B-</b> <i>Clethra alnifolia</i> 'Sixteen Candles'	Summersweet	4-5'	42" o.c.	Medium height shrub with color interest spring through fall.
<i>Hydrangea arborescens</i> 'Annabelle'	Smooth Hydrangea	4-5'	42" o.c.	Medium height shrub which produces large white flowers in late spring.
<b>C-</b> <i>Amsonia hubrechtii</i>	Willowleaf Bluestar	2-5'	24" o.c.	Fine textured perennial with blue star-like flowers appearing in early summer.
<b>D-</b> <i>Polystichum acrostichoides</i>	Christmas Fern	1.5-3'	24" o.c.	Evergreen fern that grows in a fountain-like clump.
<i>Dryopteris marginalis</i>	Evergreen Wood Fern	1-3'	24" o.c.	Woodland fern with excellent rich brown color in Autumn.
<b>E-</b> <i>Chelone glabra</i>	Turtlehead	2-3'	18" o.c.	Shorter height perennial with white flowers appearing in late summer early fall.
<i>Heuchera americana</i>	Coral Bell	1-2'	18" o.c.	Darker purple foliage perennial with white showy flowers in spring.

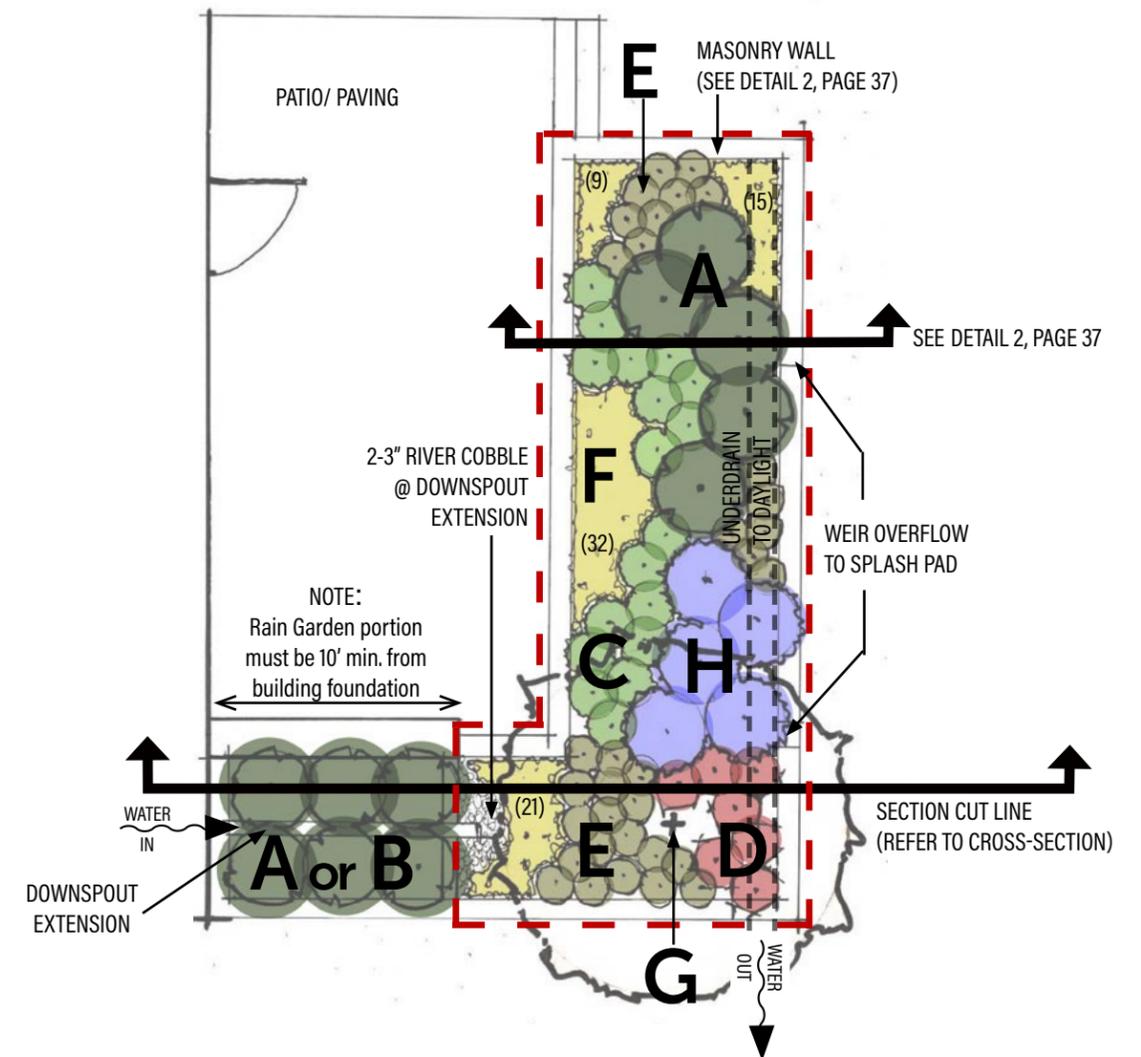
Note: o.c. = On Center



Selecting plants the deer don't prefer will help to reduce the effort needed to use repellent spray or fence the garden.

**Underdrained Planterbox planting plan** **SUN**

**PLAN** (+/- 300 sf Garden FP)



Scale: 1/8"=1'-0"



Note: FP = Footprint

SUN

# Underdrained Planterbox planting plan

## PLANT LIST



**A** *Ilex verticillata* 'Cacapon' / Winterberry\*  
6-8' HT.- 42" o.c.  
Medium height shrub providing year round interest with red berries



**B** *Baptisia australis* / Blue False Indigo  
3-4' HT.- 42" o.c.  
Upright perennial with many purple flowers atop flower spikes in spring



**C** *Iris versicolor* / Blue Flag Iris  
24-30" HT.- 12" o.c.  
Swordlike leaves with large, violet-blue flowers in late spring



**D** *Rudbeckia fulgida* / Black Eyed Susan  
2' HT.- 24" o.c.  
Native, yellow flowering perennial that blooms from June to October



**E** *Asclepias tuberosa* / Butterfly Milkweed  
1-2' HT.- 18" o.c.  
Medium height perennial with orange flowers in early summer



**F** *Phlox subulata* / Moss Phlox  
4-6" HT.- 12" o.c.  
Spring blooming fragrant perennial with lower growth habit



**G** *Cercis canadensis* / Eastern Redbud  
20-30' HT.  
Tallest structural element with a burst of pink pea-like flowers in spring



**H** *Clethra alnifolia* 'Hummingbird' / Hummingbird Summersweet  
2-4' HT.- 42" o.c.  
Medium height shrub with fragrant white flower spikes attracting butterflies

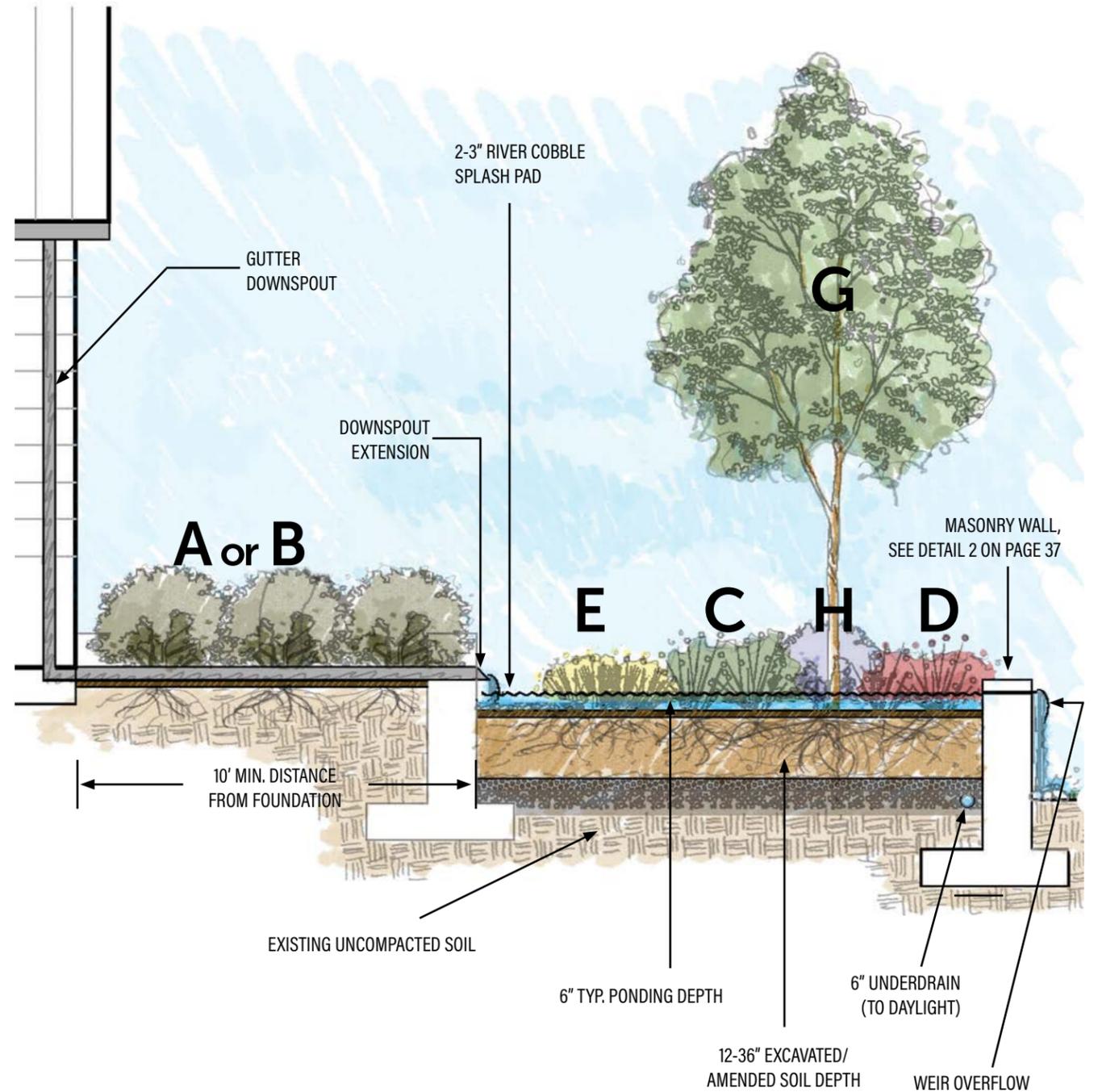
Note: o.c. = On Center

\* Denotes Female Plant; Requires 1 male counterpart. For Winterberry, provide one 'Jim Dandy' (male) for each grouping of 'Cacapon' (female).

SUN

# Underdrained Planterbox planting plan

## CROSS-SECTION



Scale: 1/4" = 1'-0"



SUN

# Underdrained Planterbox planting plan

## ALTERNATE PLANT CHOICES

	Latin Name	Common	Ht.	Spacing	Design Value
A-	<i>Ilex glabra 'Shamrock'</i>	Inkberry	3-4'	42" o.c.	Medium height shrub providing evergreen foliage
	<i>Viburnum dentatum</i>	Arrowwood Viburnum	4-6'	42" o.c.	Medium height deciduous shrub which produces white flowers in late spring.
B-	<i>Panicum virgatum 'Shenandoah'</i>	Red Switchgrass	3-4'	42" o.c.	Medium height grass with color interest spring through fall.
	<i>Eupatorium dubium 'Little Joe'</i>	Joe Pye Weed	3-4'	42" o.c.	Perennial with late summer blooms that will attract butterflies. Dwarf form of tall.
C-	<i>Aster novae angliae 'Purple Dome'</i>	New England Aster	1.5-2'	24" o.c.	Dwarf perennial that blooms through September with vibrant purple flowers.
	<i>Schizachyrium scoparium 'The Blues'</i>	Little Bluestem	2-3'	24" o.c.	Narrow, upright grass with light-blue foliage and year-round color interest.
D-	<i>Monarda didyma 'Petite Delight'</i>	Bee Balm	1.5 - 2.5'	24" o.c.	Perennial with pink blooms June through September attracting hummingbirds.
	<i>Eupatorium coelestinum</i>	Mist Flower	1.5 - 2.5'	24" o.c.	Perennial with light blue blooms July through October.
E-	<i>Penstemon digitalis 'Huskers Red'</i>	Beard Tongue	2-3'	18" o.c.	Clump forming perennial with tubular flowers in mid spring early summer.
	<i>Liatris spicata 'Kobold'</i>	Purple Gayfeather	2.5'	18" o.c.	Medium height perennial with protruding purple spikes in late summer.
F-	<i>Sisyrinchium graminoides</i>	Blue-Eyed Grass	6-12"	12" o.c.	Small perennial with fine textured leaves and blue flowers.
	<i>Geranium maculatum</i>	Wild Geranium	1-2'	12" o.c.	A low clustering perennial with many pale pink flowers that bloom April to May.
G-	<i>Betula nigra 'Heritage'</i>	River Birch	50-80'	N/A	Tallest structural element providing shade and vertical interest.
	<i>Crataegus virdis 'Winter King'</i>	Green Hawthorn	25-35'	N/A	Tallest structural element providing year round interest.
H-	<i>Hypericum densiflorum</i>	St. John's Wart	4-6'	42" o.c.	Taller, dense, perennial with bright yellow flowers.
	<i>Baptisia australis</i>	Blue False Indigo	3-4'	42" o.c.	Taller perennial with intense blue blooms.

Note: o.c. = On Center

Planter boxes can allow a raingarden to be fit into a very narrow space. Usually, they require an underdrain.

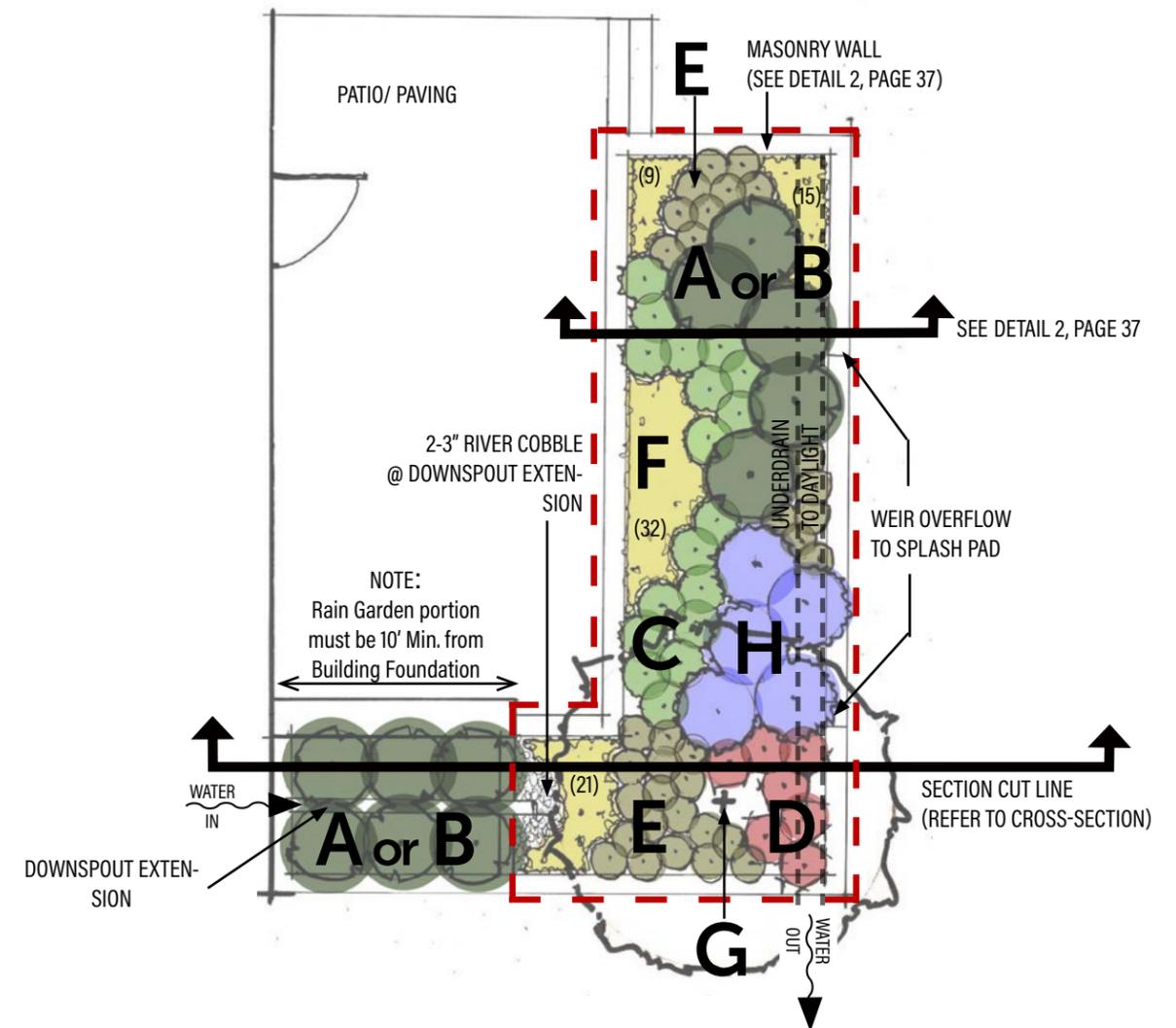


# Underdrained Planterbox planting plan

SHADE/  
PART SHADE

## PLAN

(+/- 300 sf Garden FP)



Scale: 1/8" = 1'-0"



Note: FP = Footprint

SHADE/  
PART SHADE **Underdrained Planterbox planting plan**

PLANT LIST



**A** *Photinia pyrifolia* (also called *Aronia arbutifolia*) / Red Chokeberry  
3' HT.- 36" o.c.  
Shrub with white flowers in spring and red berries and orange-red leaves in fall



**B** *Hydrangea arborescens* 'Annabelle' / Smooth Hydrangea  
3-4' HT.- 42" o.c.  
Deciduous shrub with large white clusters of flowers in summer



**C** *Aruncus dioicus* / Goat's Beard  
1.5-3' HT.- 24" o.c.  
Perennial with fine textured feathery blooms in late spring



**D** *Chasmanthium latifolium* / Northern Sea Oats  
3' HT.- 24" o.c.  
Clump-forming, ornamental grass with drooping seeds



**E** *Carex stricta* / Tussock Sedge  
2-3' HT.- 18" o.c.  
Perennial sedge that forms a dense tussock of leafy culms



**F** *Phlox stolonifera* 'Blue Ridge' / Creeping Phlox  
8" HT.- 12" o.c.  
Mat forming habit with masses of clear purple flowers



**G** *Magnolia virginiana* / Sweetbay Magnolia  
10-35' HT.  
Tallest structural element with fragrant white flowers in spring

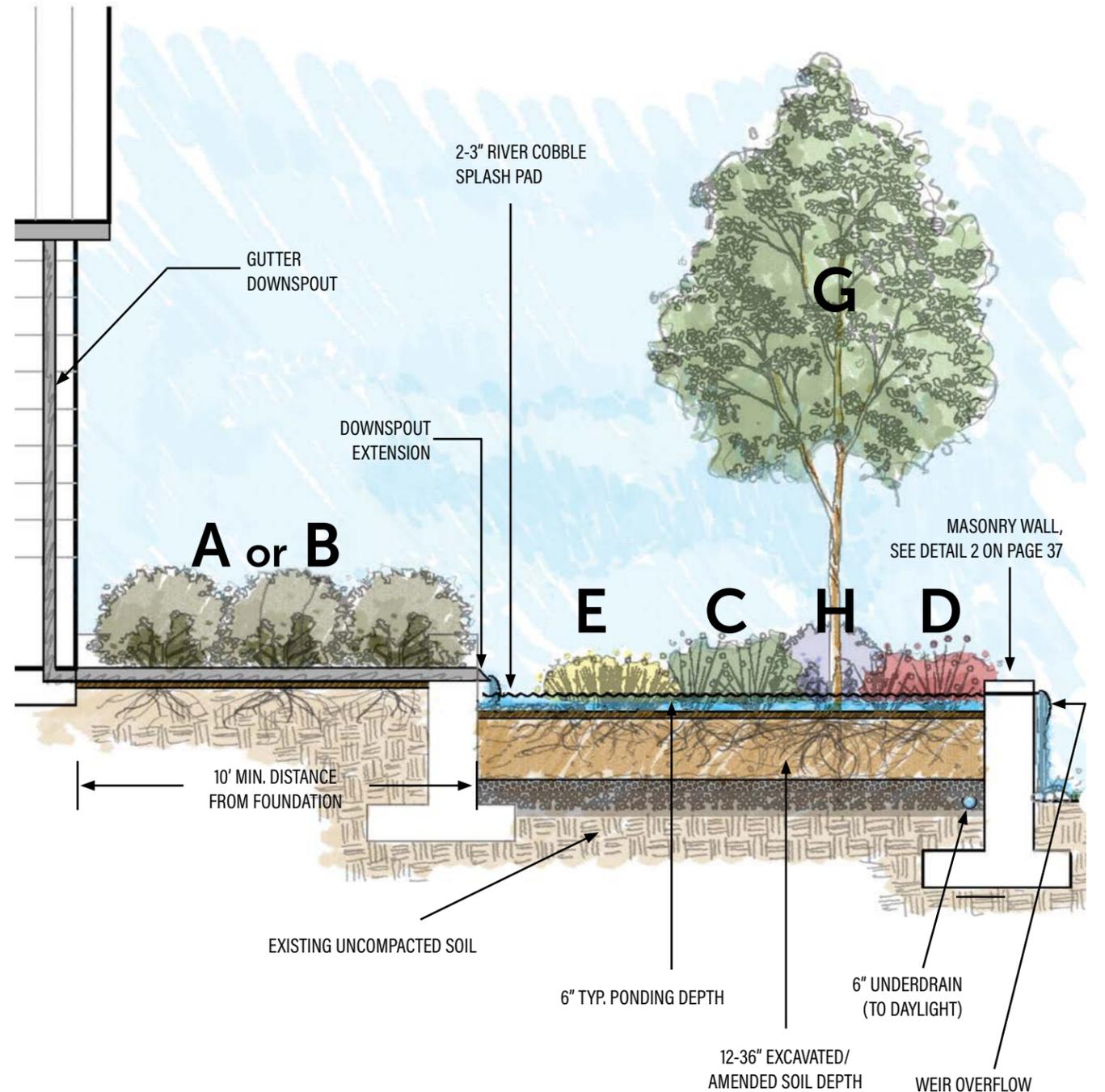


**H** *Itea virginica* 'Henry's Garnet' / Sweetspire  
3-4' HT.- 42" o.c.  
Medium height shrub with natural growth habit providing year round interest

Note: o.c. = On Center

SHADE/  
PART SHADE **Underdrained Planterbox planting plan**

CROSS-SECTION



Scale: 1/4" = 1'-0"



**SHADE/  
PART SHADE** Underdrained Planterbox planting plan

**ALTERNATE PLANT CHOICES**

Latin Name	Common	Ht.	Spacing	Design Value
<b>A-</b> <i>Myrica pensylvanica</i>	Bayberry	5-10'	42" o.c.	Larger shrub providing evergreen foliage
<i>Ilex glabra 'Compacta'</i>	Compacta Inkberry	3-4'	42" o.c.	Medium height shrub with fine textured evergreen foliage.
<b>B-</b> <i>Clethra alnifolia 'Sixteen Candles'</i>	Summersweet	4-5'	42" o.c.	Medium height shrub with color interest spring through fall.
<i>Leucothoe fontanesiana 'Scarletta'</i>	Scarletta Fetterbush	2-3'	42" o.c.	Low, dense shrub with red to deep purple foliage color.
<b>C-</b> <i>Amsonia hubrechtii</i>	Willowleaf Bluestar	2-5'	24" o.c.	Fine textured perennial with blue star-like flowers appearing in early summer.
<i>Aster divaricatus</i>	White Wood Aster	1-2'	24" o.c.	Shorter perennial with white daisy flowers appearing August to October.
<b>D-</b> <i>Polystichum acrostichoides</i>	Christmas Fern	1.5-3'	24" o.c.	Evergreen fern that grows in a fountain-like clump.
<i>Osmunda cinnamomea</i>	Cinnamon Fern	3-4'	24" o.c.	Woodland fern with excellent rich brown color in Autumn.
<b>E-</b> <i>Chelone glabra</i>	Turtlehead	2-3'	18" o.c.	Shorter height perennial with white flowers appearing in late summer early fall.
<i>Heuchera americana</i>	Coral Bell	1-2'	18" o.c.	Darker purple foliage perennial with white showy flowers in spring.
<b>F-</b> <i>Phlox divaricata</i>	Wild Blue Phlox	10-12"	12" o.c.	Spring blooming fragrant perennial with lower growth habit.
<i>Chrysogonum virginianum</i>	Goldenstar	6-8"	12" o.c.	Low growing, spreading perennial with bright yellow flowers appearing in spring.
<b>G-</b> <i>Amelanchier canadensis</i>	Shadbush	12-20'	N/A	Tallest structural element as a deciduous, white flowering tree with fine texture.
<i>Chionanthus virginicus</i>	White Fringetree	4-5'	N/A	Tallest structural element with creamy white flowers and good fall color.
<b>H-</b> <i>Rhododendron periclymenoides</i>	Pinxterbloom Azalea	3-8'	42" o.c.	Taller deciduous shrub with many showy blooms in spring.
<i>Viburnum trilobum 'Compactum'</i>	Viburnum	8-12'	42" o.c.	Taller round deciduous shrub with attractive fall color and showy red fruit.

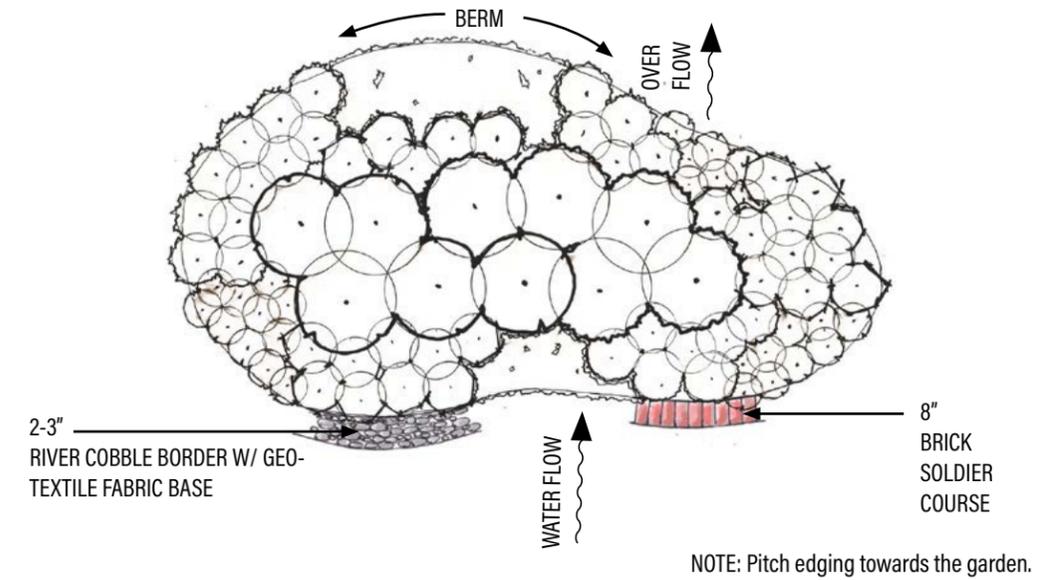
Note: o.c. = On Center



Whether it is full sun or shade, evaluate your site to determine if a planter box is the best solution.

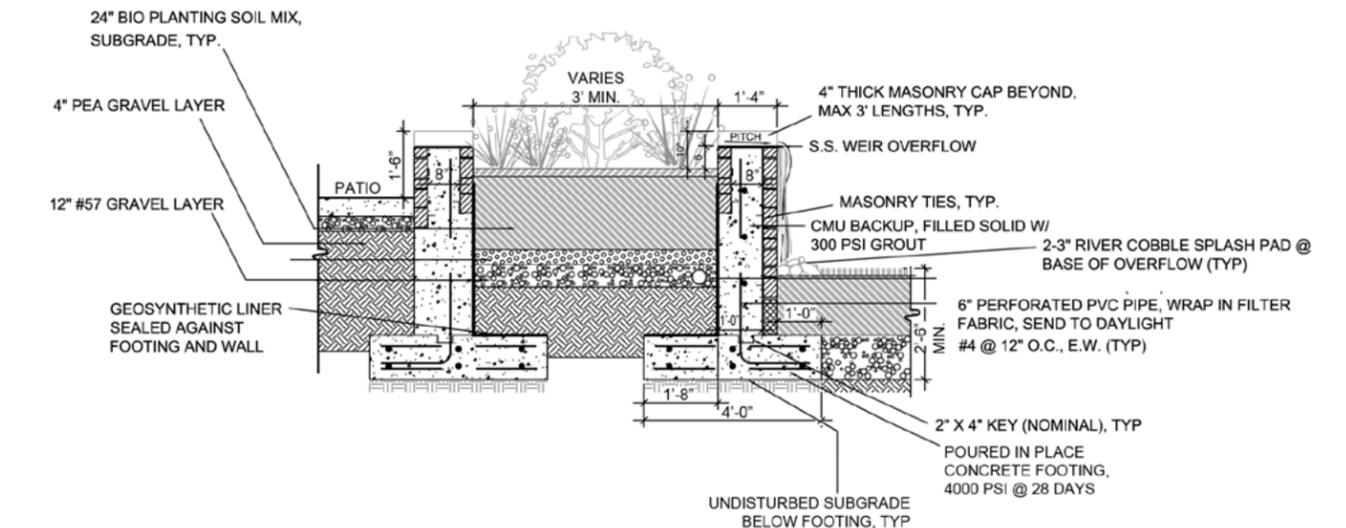
**ALL PLANS – Miscellaneous Details**

**Details**



**DETAIL 1: Garden Plan - Optional Edging- Brick or Beach Pebbles**

Scale: 1/8" = 1'-0"



**DETAIL 2: Section- Masonry Wall for Underdrained Rain Garden Planter**

Scale: 1/4" = 1'-0"





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